REMARKS

The Examiner is thanked for the thorough examination of the present application. The FINAL Office Action, however, has continued to reject all claims. In the FINAL Office Action, the Examiner sets for certain remarks, which explain his disagreement with Applicant's previous remarks. Applicant continues to disagree with the rejections, for the reasons previously advanced. As it appears that this matter is headed for appeal, Applicant sets out the following additional remarks, in hopes of leading the Examiner to reconsider the rejections, and thereby avoid the time and expense of an appeal. Applicant respectfully requests reconsideration and withdrawal of the rejections for the following additional reasons.

Response to Rejections under 35 U.S.C. 103 (part I)

Claims 1-7, 9-15 and 17-23 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kaneko et al. (2001/0020230) in view of Ham (US 7,370,005). Applicant respectfully disagrees with these rejections.

In order for a claim to be properly rejected under 35 U.S.C. §103(a), the teachings of the prior art reference must suggest all features of the claimed invention to one of ordinary skill in the art. Among these rejected claims, claims 1, 9 and 17 are independent claims. Claims 9 and 17 are rejected on the same basis as claim 1. Therefore, remarks are provided regarding to patentability of the independent claim 1, with the understanding that these remarks are applicable to the rejections of claims 9 and 17 as well.

Independent claim 1 recites:

1. A computer-implemented method of matching customer demand with a manufacturer supply of products from plurality of factory facilities, comprising using a computer to perform the steps of:

inputting demand data for a demand of at least one product requested by at least one customer and supply data corresponding to a production capacity of the factory facilities;

performing a first matching operation to match the demand data with the supply data to obtain a first demand-supply matching result;

collecting rematched demand data corresponding to a portion of the demand unsatisfied by the first matching operation from the demand data and collecting rematched supply data corresponding to a portion of the production capacity unused in the first matching operation from the supply data;

classifying the rematched demand data into a plurality of classified demand data records according to at least one attribute of the at least one product and the at least one customer corresponding thereto, the classified demand data having different priorities; and

performing a second matching operation to match the classified demand data with the rematched supply data based on the priorities of the classified demand data to obtain a second demand-supply matching result.

(*Emphasis added*). Claim 1 patently defines over the cited art for at least the reasons that the cited art fails to disclose the features emphasized above.

One of the main features of claim 1 is that, after the first matching operation, the demand unsatisfied by the first matching operation (*i.e.*, rematched demand data) is further classified according to attribute(s) of the product and the customer pertaining to the demand, and the classified rematched demand data is then processed in a second matching operation. Neither Kaneko nor Ham teaches this feature.

The FINAL Office Action (page 4) alleges that Ham teaches 'classifying demand data into three groups', and therefore concludes that 'Ham teaches inventory replication based upon order fulfillment rates with the features of classifying the rematched demand data into a plurality of classified demand data records according to at least one attribute of the at least one product and the at least one customer corresponding thereto

and the classified demand data having different priorities'. Applicant disagrees with this allegation and submits that the conclusion is not supported on the basis of the facts gleaned from the cited reference.

First, Applicant notes that the statement: "abstract discusses classifying demand data into three groups" (FINAL Office Action, p. 4, line 10) simply isn't supported by the teachings of Ham. In fact, the abstract of Ham, in total, teaches:

> A load balancing technology segregates various inventory types (e.g., potatoes vs. milk, vs. pretzels vs. tissue paper, etc.) based upon how frequently they are ordered in a distribution center. Inventory types that are ordered at the slowest rate are not "replicated" over multiple pods in the distribution center. Rather, they are constrained to reside at a single pod within the distribution center. Items that are ordered somewhat more frequently than those in the slowest group are replicated in multiple pods across the distribution center. In other words, these items are separately stocked at locations on more than one pod in the distribution center. This means that a container passing through the distribution center can obtain each of the items in the second group of item types at multiple pods in the distribution center. Thus, these items do not create a bottleneck in the order fulfillment process. Inventory types in a third group, the fastest movers, are segregated from items in the first two groups. They are stored in a separate type of pod that fulfills orders even faster than the other type of pods.

As can be readily verified, by even a cursory inspection of the abstract of Ham, Ham doe not teach classing demand data into three groups. Instead, the abstract describes three different types of inventory (e.g., slow, moderate, and fast-moving inventory), and it appears that the Office Action may have confused this with the claimed feature.

More particularly, According to the abstract of Ham, "inventory items are segregated into various inventory types based upon how frequently they are ordered in a distribution center." In other words, according to Ham, the subjects that are classified are 'inventory items'. Persons of ordinary skill in the art would understand the "inventory items" of Ham to be supplies, rather than demands. Consequently, the

statement "abstract discusses classifying <u>demand data</u> into three groups" is clearly misplaced. For at least this reason, the rejection is misplaced and should be withdrawn.

In addition, the conclusion that "Ham teaches inventory replication based upon order fulfillment rates with the features of classifying the rematched demand data into a plurality of classified demand data records according to at least one attribute of the at least one product and the at least one customer corresponding thereto and the classified demand data having different priorities" cannot properly be drawn from the teachings of Han.

The inventory segregation of Ham does not disclose the features of *classifying the <u>rematched</u> demand data*.

Furthermore, the Examiner maintained that: "items being arranged based on how frequently they are ordered is a measure of the demand for those items" (Office Action, page 18). Applicant disagrees, and submits that whether or not the operation of arranging items is a measure of the demand, it cannot change the fact that "segregating inventories" of Ham does not disclose the main feature described above -- *i.e.*, "after the first matching operation, the demand unsatisfied by the first matching operation (i.e., rematched demand data) is further classified according to attribute(s) of the product and the customer pertaining to the demand, and the classified rematched demand data is then processed in a second matching operation." For at least this additional reason, the rejection of claim 1 should be withdrawn.

Further, claim 1 does not claim mere duplication of essential working parts (as alleged in page 19 of the FINAL Office Action), the demand unsatisfied by the first matching operation (*i.e.*, rematched demand data) is further classified after the first

matching operation, and the second matching operation is implemented on the classified rematched demand data.

The FINAL Office Action admits that Kaneko fails to teach the features of "classifying the rematched demand data into a plurality of classified demand data records according to at least one attribute of the at least one product and the at least one customer corresponding thereto, the classified demand data having different priorities; and performing a second matching operation to match the classified demand data with the rematched supply data based on the priorities of the classified demand data to obtain a second demand-supply matching result". In addition, as discussed above, Ham does not teach the features of the classifying step and the second matching operation, either.

For these reasons, teachings of Kaneko and Ham (collectively) do not suggest all features of the claim 1 to one of ordinary skill in the art. Therefore, even if Kaneko and Ham could be properly combined, the resulting combination still fails to teach or suggest all features of claim 1. Accordingly, the rejection of claim 1 should be withdrawn. As noted above, the rejections of claims 9 and 17 should be withdrawn for the same reasons as claim 1. Insofar as all remaining claims depend from claim 1, claim 9, or claim 17, the rejections of all remaining claims should be withdrawn for the same reasons.

Response to Rejections under 35 U.S.C. 103 (part II)

Claims 8, 16, 24 and 25-32 and 33 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Kaneko and Ham, further in view of Menninger et al. (US 6,954,736).

Claim 1 serves as the base claim for claim 8, which patently defines over the cited art, and the teachings of claim 8 cannot be obtained by the teachings of the cited arts, and the rejections of claim 8 should be withdrawn.

Claim 9 serves as the base claim for claim 16, which patently defines over the cited art, and the teachings of claim 16 cannot be obtained by the teachings of the cited arts, and the rejections of claim 16 should be withdrawn.

Claim 17 serves as the base claim for claim 24, which patently defines over the cited art, and the teachings of claim 24 cannot be obtained by the teachings of the cited arts, and the rejections of claim 24 should be withdrawn.

Among the other rejected claims, claim 25 is independent. Therefore, remarks are provided regarding to patentability of the independent claim 25 and claims depended thereto, respectively.

The FINAL Office Action (pages 11~12) alleged that Menninger teaches the capacity model and the capacity management module of claim 25.

More specifically, the Office Action states that the "leading to predictive supply chain decisions" (*citing* Menninger, col. 17, lines 50-53) is construed as the route information for the product.

According to claim 25, the route information records a plurality of tools processing the products.

On the contrary, according to Menninger, a mechanism for order confirmation in a supply chain management framework is provided, one of ordinary skill in the art can know, from the context, the 'predictive supply chain decisions' have nothing to do with the "tools" of claim 25.   Therefore, the 'predictive supply chain decisions' do not disclose the "route information," which <u>records a plurality of tools</u>.

Applicant submits that, to one of ordinary skill in the art, neither 'leading to predictive supply chain decisions' (Menninger, col. 17, lines 50-53) nor 'a first set of data collected from a plurality of stores of the supply chain utilizing a network (Menninger, col. 17, 58-60) has anything to do with the "capacity model having route information for the product, wherein the <u>route information records a plurality of tools</u>" of claim 25. For at least these reasons, the rejection of claim 25 should be withdrawn.

The Office Action also stated that Menninger teaches the "capacity management module" of claim 25, in col. 129, lines 29-31 and col. 17, lines 60-67. Applicant disagrees.

According to the cited paragraphs, a second set of data is compared against the forecasting in operation 1136, wherein the second set of data relates to the amount of goods sold by the stores. To one of ordinary skill in the art, "comparing the amount of goods sold by the stores against a forecasting" simply has nothing to do with "reserving production capacity of the factory facilities according to the demand data and the route information," as defined in claim 25. For at least this additional reason, the rejection of claim 25 should be withdrawn.

In addition, since the Menninger does not disclose the route information which records a plurality of tools, it is impossible for Menninger to disclose "reserving production capacity of the factory facilities <u>according to</u> the demand data and <u>the route information</u>".

For at least these reasons, teachings of Kaneko, Ham and Menninger do not suggest all features of the claim 25 to one of ordinary skill in the art. Accordingly, the rejection of claim 25 should be withdrawn.

Claim 25 serves as the base claim for claims 26-33, which patently defines over the cited art, and the teachings of claims 26-33 cannot be obtained by the teachings of the cited arts, and the rejections of claims 26-33 should be withdrawn.

As a separate and independent basis for the patentability of all claims, Applicant submits that the combination of Kanedo and Ham is improper and therefore does not render the claims obvious. In this regard, the Office Action combined Ham with Kanedo to reject the claims on the solely expressed basis that "it would have been obvious ... in order to adequately fulfill an order." (see e.g., FINAL Office Action, p. 4)

This rationale is both incomplete and improper in view of the established standards for rejections under 35 U.S.C. § 103.

In this regard, the MPEP section 2141 states:

> The Supreme Court in KSR reaffirmed the familiar framework for determining obviousness as set forth in Graham v. John Deere Co. (383 U.S. 1, 148 USPQ 459 (1966))... As reiterated by the Supreme Court in KSR, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966). Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

(A) Ascertaining the differences between the claimed invention and the prior art; and

(B) Ascertaining the differences between the claimed invention and the prior art; and

(C) Resolving the level of ordinary skill in the pertinent art.

In addition:

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to:

(A) The claimed invention must be considered as a whole;

(B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;

(C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention and

(D) Reasonable expectation of success is the standard with which obviousness is determined.

Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986).

As reflected above, the foregoing approach to obviousness determinations was

recently confirmed by the United Stated Supreme Court decision in KSR

INTERNATIONAL CO. V. TELEFLEX INC. ET AL. 550 U.S. 1, 82 USPQ2d 1385, 1395-

97 (2007), where the Court stated:

In Graham v. John Deere Co. of Kansas City, 383 U. S. 1 (1966), the Court set out a framework for applying the statutory language of §103, language itself based on the logic of the earlier decision in Hotchkiss v. Greenwood, 11 How. 248 (1851), and its progeny. See 383 U. S., at 15–17. The analysis is objective:

"Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." Id., at 17–18.

Indeed, as now expressly embodied in MPEP 2143, "[t]he **key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious**. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit." (*Emphasis added, MPEP 2143*). "Objective evidence relevant to the issue of obviousness **must** be evaluated by Office personnel." (MPEP 2141). "The key to supporting any rejection under 35 U.S.C. 103 is the **clear articulation of the reason(s)** why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 **should be made explicit**. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that '[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.'" (MPEP 2141).

Simply stated, the Office Action has failed to at least (1) ascertain the differences between and prior art and the claims in issue; and (2) resolve the level of ordinary skill in the art. Furthermore, the alleged rationale for combining the references is merely an improper conclusory statement that embodies clear and improper hindsight rationale. As noted above, the alleged motivation for combining Ham with Kaneko was "in order to adequately fulfill an order." However, absolutely no discussion was provided in the Office Action as to why or how the combination would result in improved adequacy of order fulfillment. Indeed, no discussion was provided by the Office Action as to why one skilled in the art would view the order fulfillment of Kaneko as being inadequate (the stated reason that would motivate one to look for other solutions to this apparent

problem with Kaneko." As such, the Office Action fails to set for the required objective indicia appropriate to support the rejection.

For at least these additional reasons, Applicant submits that the rejections of all claims are improper and should be withdrawn.

CONCLUSION

In light of the above remarks having been addressed, it is therefore respectfully requested that all claims be allowed so that the entire case may be passed to early issuance. If there are any remaining issues to be resolved, Applicants request that Examiner contacts the undersigned attorney for a telephone interview.

No fee is believed to be due in connection with this submission. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

/Daniel R. McClure/

_____

Daniel R. McClure
Registration No. 38,962

THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.
Suite 1500
600 Galleria Parkway S.E.
Atlanta, Georgia 30339
(770) 933-9500